

What is claimed is:

1. A traffic information collecting and providing system utilizing a PCS network, comprising:

5 a PCS terminal for detecting and storing subscriber location information only once by service areas of each base tranceiver station and transmitting the detected and stored location information to the base tranceiver station;

10 a plurality of base tranceiver stations installed on roads of specific areas requiring traffic information and receiving location information from the PCS terminal;

a PCS network for transmitting the location information detected by the PCS terminal through the base tranceiver station; and

15 a traffic information center for checking a traffic volume and congestion conditions by processing and statistically analyzing the subscriber location information transmitted through the PCS network.

20 2. The method according to claim 1, wherein the subscriber location information consists of the location of a subscriber and the time at which the location is measured.

3. The method according to claim 1, wherein the PCS terminal does not transmit the detected user location information until a predetermined number of times of detection is reached.

25 4. The method according to claim 3, wherein the number of times of detecting location information is set according to a parameter value outputted from

the base tranceiver station.

5        5.        The method according to claim 4, wherein the base tranceiver station is one disposed at a service area through which the PCS terminal passes for the first time among the plurality of base tranceiver stations.

10        6.        The method according to claim 4, wherein the PCS terminal transmits all detected location information at once when a predetermined number of detecting user location information is reached.

15        7        a traffic information collecting and providing method utilizing a PCS network, comprising the steps of:

      outputting a control signal from a plurality of base tranceiver stations installed on roads of specific areas requiring traffic information to a PCS terminal for detecting and storing location information only once by each service area;

      collecting subscriber location information by using the PCS terminal;

      transmitting the collected location information to the PCS network through the base tranceiver station; and

20       processing the location information into a traffic information by statistically analyzing the subscriber location information transmitted through the PCS network.

      8.        The method according to claim 7, wherein the control signal is a parameter value for controlling the number of times of detecting location information of the PCS terminal.

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9        The method according to claim 7, wherein the base tranceiver station is one disposed at a service area through which the PCS terminal passes for the first time among the plurality of base tranceiver stations.

5        11.        The method according to claim 7, wherein the base tranceiver station is plurally installed, and each base tranceiver station is disposed on roads of specific areas requiring traffic information.

10        12.        The method according to claim 7, wherein the PCS terminal detects subscriber location information only once by service areas of each base tranceiver station.

15        13.        The method according to claim 7, wherein the subscriber location information consists of the location of a subscriber and the time at which the location is measured.

20        14.        The method according to claim 7, wherein the PCS terminal does not transmit the detected user location information until a predetermined number of times of detection is reached.

25        15.        The method according to claim 7, wherein the PCS terminal transmits all detected location information at once when a predetermined number of detecting user location information is reached.

16.        The method according to claim 7, wherein the base tranceiver

station provides general mobile communication call services and traffic information call services.

17. The method according to claim 7, wherein the PCS terminal has  
5 general mobile communication service functions and traffic information service functions.

18. The method according to claim 7, wherein the step of processing the location information into a traffic information comprises the steps of:

10 judging whether a subscriber is walking or in a running car by comparing movement distance between measured intervals with respect to time when location information is measured; and

checking the traffic volume and congestion conditions of a specific interval by comparing the movement distance between measured intervals with a  
15 reference value, if the subscriber is in a running car.

19 The method according to claim 18, wherein if it is judged that the subscriber is not in a running car, or the movement distance between measured intervals is smaller than the reference value, the corresponding location  
20 information is removed.